

1 **51979/RVW/V186**

ABSTRACT OF THE DISCLOSURE

5 A system that controls a back reaming operation of a
drilling rig is provided that includes a hoisting system that
moves a drill pipe during a back reaming operation at a
hoisting speed and a hoisting torque. The hoisting system
comprises at least one back reaming parameter sensor for
measuring a corresponding at least one back reaming parameter.
10 An operator control unit allows an operator to input a
predetermined value of the at least one back reaming parameter
therein. A back reaming parameter sensor obtains the measured
value of the at least one back reaming parameter. A control
system monitors the at least one back reaming parameter. A
15 braking assembly resists the hoisting torque of the drawworks
system when the measured value of the at least one back
reaming parameter equals the predetermined value of the at
least one back reaming parameter.

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